

## REMARKS

At the outset, the undersigned attorney, William A. Blake, would like to thank the Examiner, Marcia Golub, for the courtesy of granting the telephone interview of April 7, 2009. The participants during the interview included Examiner Golub, Mr. Blake and the first named Applicant, Alex Behfar. By this Amendment, independent claims 1, 25 and 31 have been further amended to better define the claimed invention over the references of record in view of the discussions during the telephone interview. A summary of the telephone interview and the changes to the claims follows.

For the record, claims 1, 3 and 25 remain rejected under 35 U.S.C. § 102(e) as being anticipated by Sirbu et al. (6,546,029), hereinafter the '029 patent. In addition, claims 1, 6, 25, 26, 31 and 32 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Behfar-Rad (5,132,983), hereinafter the '983 patent, and further in view of Evans et al. (4,952,019).

Applicants respectfully disagree with both of these rejections for the reasons presented in the last Amendment filed on September 26, 2008. In addition, Applicants respectfully disagree with the Examiner's assertion in the latest Office Action that the terms "epitaxial" and "etched" are product by process limitations that are not entitled to patentable weight in an apparatus claim. MPEP § 2113 clearly indicates that where the resulting structure made by a particular process is different than a structure made by another process, then the process terminology can be treated as a structural limitation. In addition, MPEP § 2113 states the following:

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive

structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (holding "interbonded by interfusion" to limit structure of the claimed composite and noting that terms such as "welded," "intermixed," "ground in place," "press fitted," and "etched" are capable of construction as structural limitations.)

*In re Garnero* actually cites "etched" as a term that is capable of construction as a structural limitation and the Examiner has given no evidence to support her assertion that *In re Garnero* is not applicable to the present case. Further, "epitaxial" structures are well known to be different than bonded layered structures such as are disclosed in the '029 patent and have distinctive molecular arrangements of crystals on top of one another that are readily detectable. These structures can in fact only be made through the use of an epitaxial manufacturing process and thus the holding of *In re Garnero* is directly on point. Applicants make these arguments for the record but the current amendments to claims 1, 25 and 31 clearly overcome the rejections of the claims for other reasons as well.

During the telephone interview, proposed changes to claims 1, 25 and 31, which have now been formally made, were discussed which Messrs. Blake and Behfar asserted clearly overcome the rejections of the claims over the '029 patent and the '983 patent. The proposed changes discussed during the interview include the amendment of claims 1, 25 and 31 to recite that the optical axis of the laser cavity or waveguide structure is parallel to the substrate, thereby overcoming the rejection of the claims under 35 U.S.C. § 102 over the '029 patent, which discloses a VCSEL (Vertical Cavity Surface Emitting Laser) in which the optical axis of the device is clearly perpendicular to the substrate. In addition, Applicants proposed the now present amendment to the claims to specify that the etched facets of the recited gap are perpendicular to

the optical axis, thereby clearly distinguishing over the disclosure in the '983 patent which discloses gaps that have facets which must not be perpendicular to the optical axis of the device in order for the device to operate.

Examiner Golub appeared to acknowledge that the proposed changes would overcome the current rejections but was concerned that other prior art could still be applied to the claims to render them unpatentable. Ms. Golub then suggested amending the claims to recite the elected preferred embodiment of the invention illustrated in FIG. 7B, which is a V-shaped laser having an etched gap in one of its legs. Although Applicants disagree that such changes are necessary to distinguish the claims over the prior art, in a effort to move the prosecution of the subject application to allowance, claim 1 has now also been amended to specify the V-shaped laser cavity formed of first and second legs with the etched gap in one of the legs. Claim 25 has been amended to specify first and second legs joined at an output facet, while claim 31 has also been amended to recite at least two legs.

The foregoing changes further distinguish claims 1, 3 and 25 over the '029 patent, thereby providing additional reasons why claims 1, 3 and 25 are not anticipated under 35 U.S.C. § 102 by the '029 patent. As for the '983 patent, even if the Examiner were correct in the assertion that the multiple ring lasers disclosed therein could be considered to be a single ring laser, an assertion with which Applicants respectfully disagree, the additional changes to claims 1, 25 and 31 nevertheless further distinguish the claims over the '983 patent as well. Regarding claim 1 as amended, the '983 patent clearly does not disclose a V-shaped laser cavity, let alone a V-shaped laser having a gap formed in one of its legs. Similarly, regarding claim 25, the '983 patent does not disclose a waveguide formed of first and second legs joined together at an output facet, one of

said legs having a gap formed therein. Finally, regarding claim 31, the '983 patent discloses multiple legs joined together end to end at an etched output facet, but the output facet cannot also serve as a facet of the etched gap formed in one of the legs. In other words, even if the gaps between the ring lasers disclosed in the '983 patent could be considered to be the gap in one leg of the laser recited in claim 31, the gap between the first ring laser and the adjacent ring laser in the '983 patent also serves as the output facet of the first ring laser, which would therefore be inconsistent with the present language of claim 31 and thus further prevents the language of claim 31 from reading on the structure in the '983 patent. Thus, for this reason also claim 31 is patentable over the '983 patent.

Regarding the various dependent claims, including those which have been withdrawn, many of these are hereby cancelled or amended to maintain consistency with the changes to claims 1, 25 and 31. In particular, claims 5-13, 17-24, 27 and 37-47 are now cancelled, while claims 3, 4, 14-16, 26, 28, 29, 33 and 35 have been amended. Withdrawn claim 14 has also been amended to be dependent on claim 1. Assuming that the changes to claims 1, 25 and 31 overcome the rejections over the prior art, which Applicants respectfully submit is the case, then dependent withdrawn claims 2, 4, 14-16, 28-30, and 33-36 are now in condition for rejoinder pursuant to the provisions of MPEP § 821.04. Accordingly, Applicants respectfully request withdrawal of the restriction requirement along with rejoinder and allowance of these dependent claims.

In view of the foregoing, Applicants respectfully submit that all of the rejections are traversed and that all of the pending claims are patentable and allowable. Accordingly, favorable reconsideration of the application is respectfully requested.

Respectfully Submitted,

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